

3



Fig. 3.



Fig. 1.



Fig. 2.

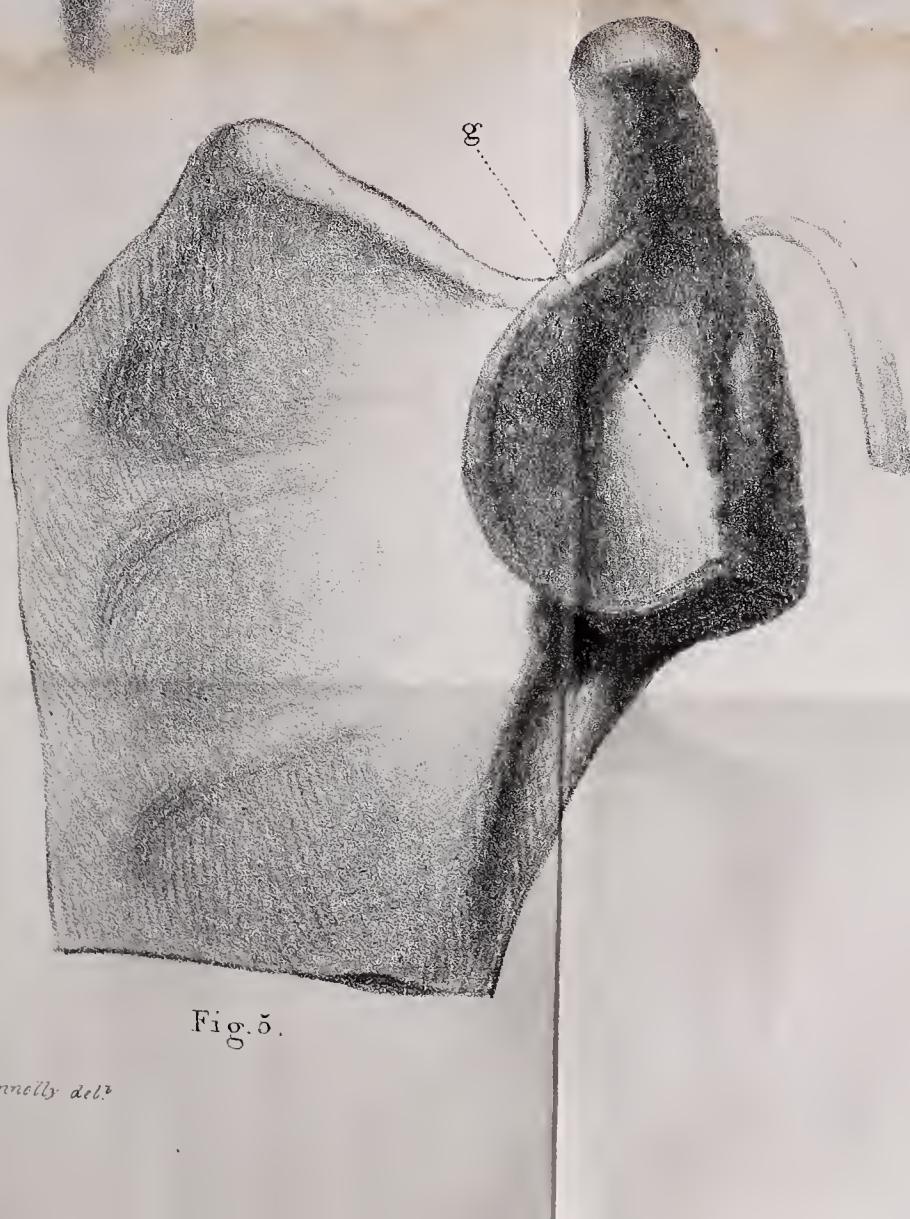


Fig. 5.

Plate 1.

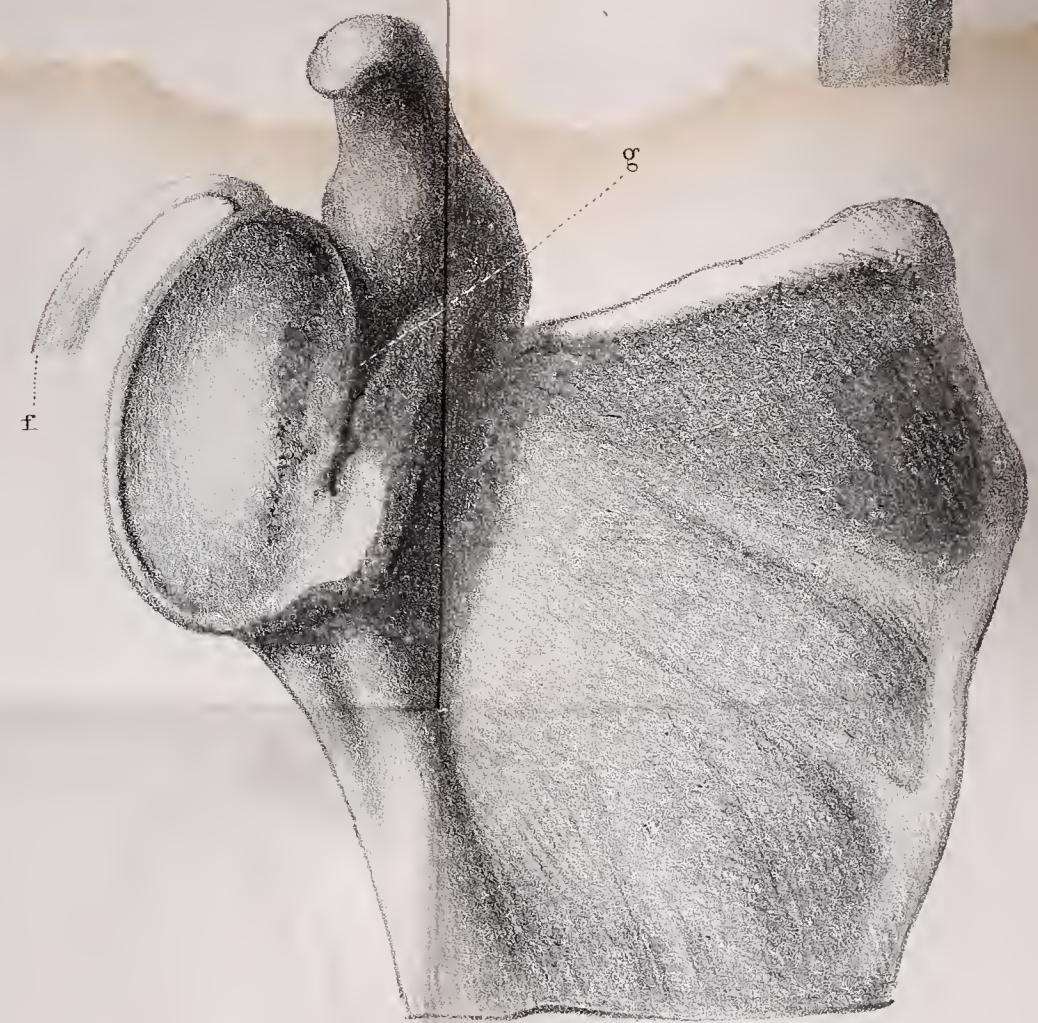
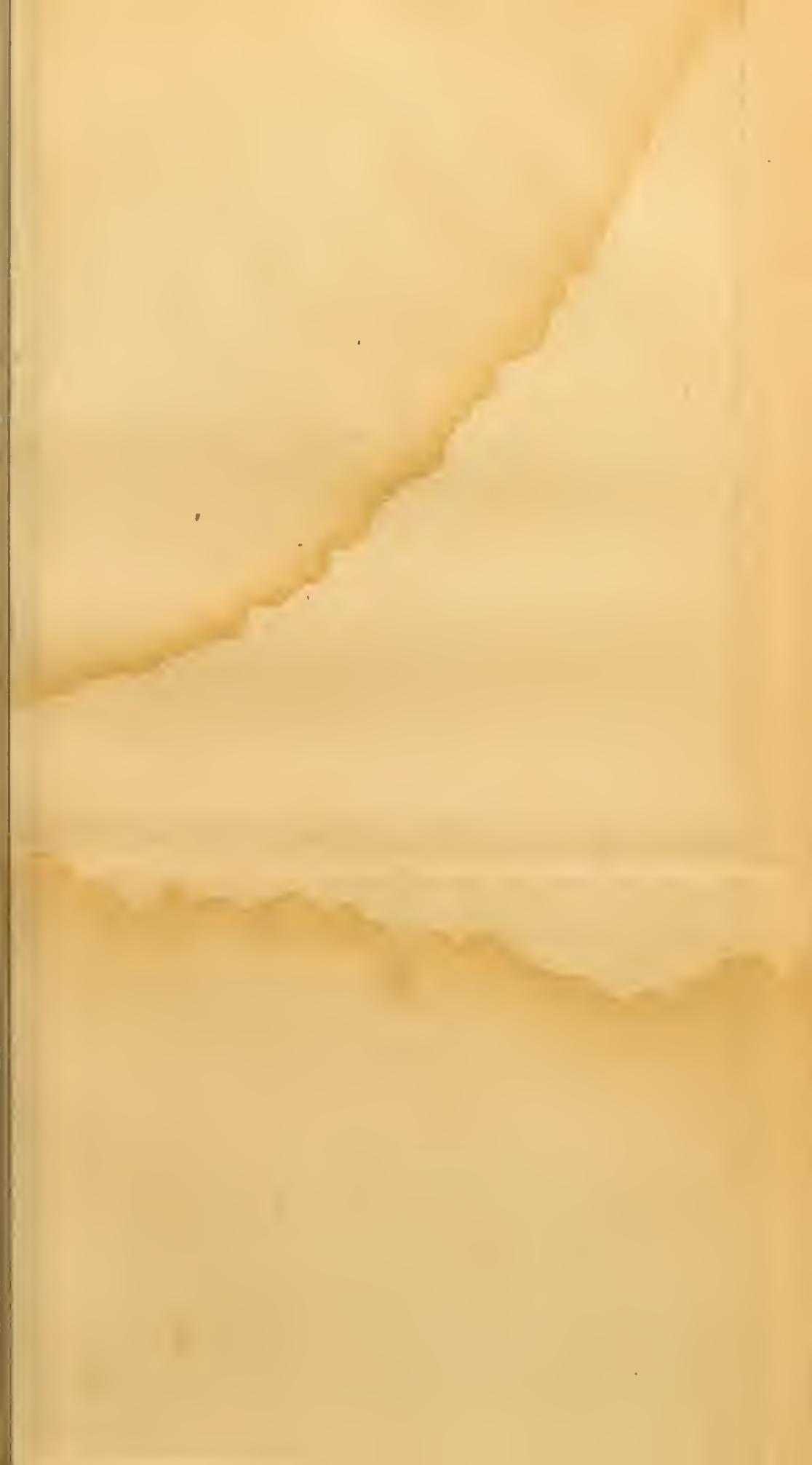


Fig. 4.

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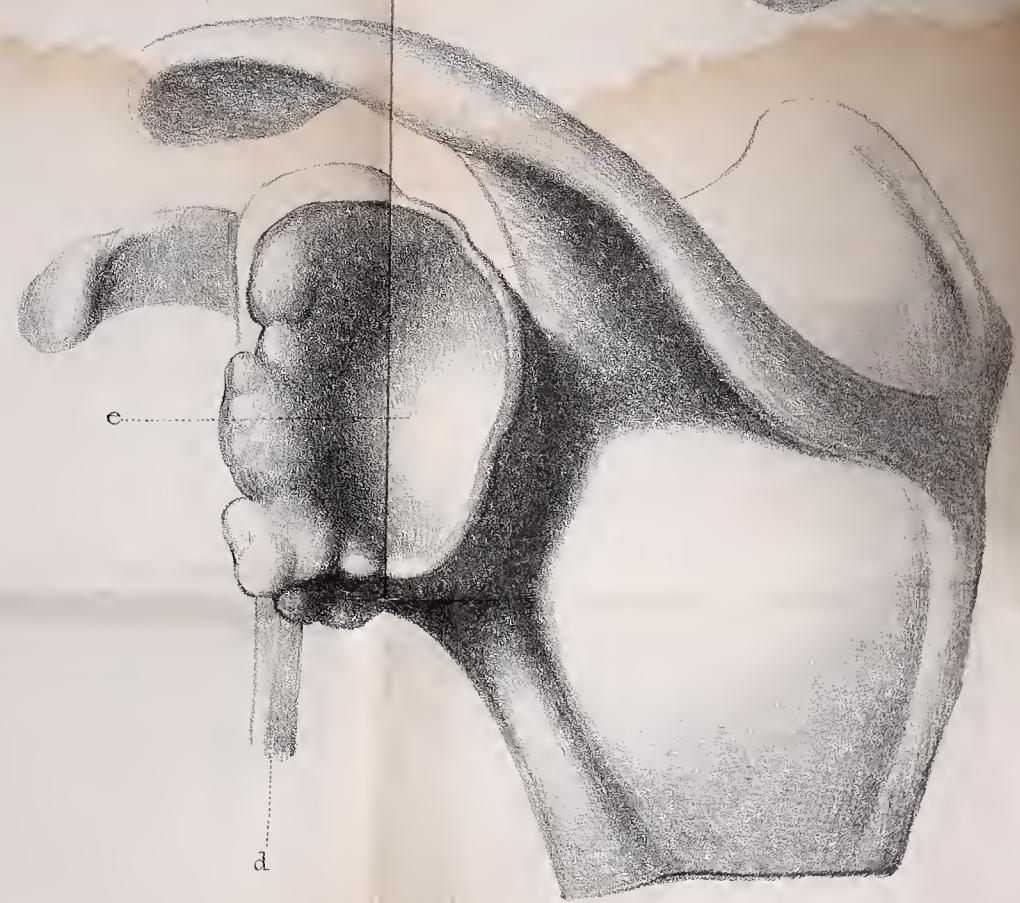
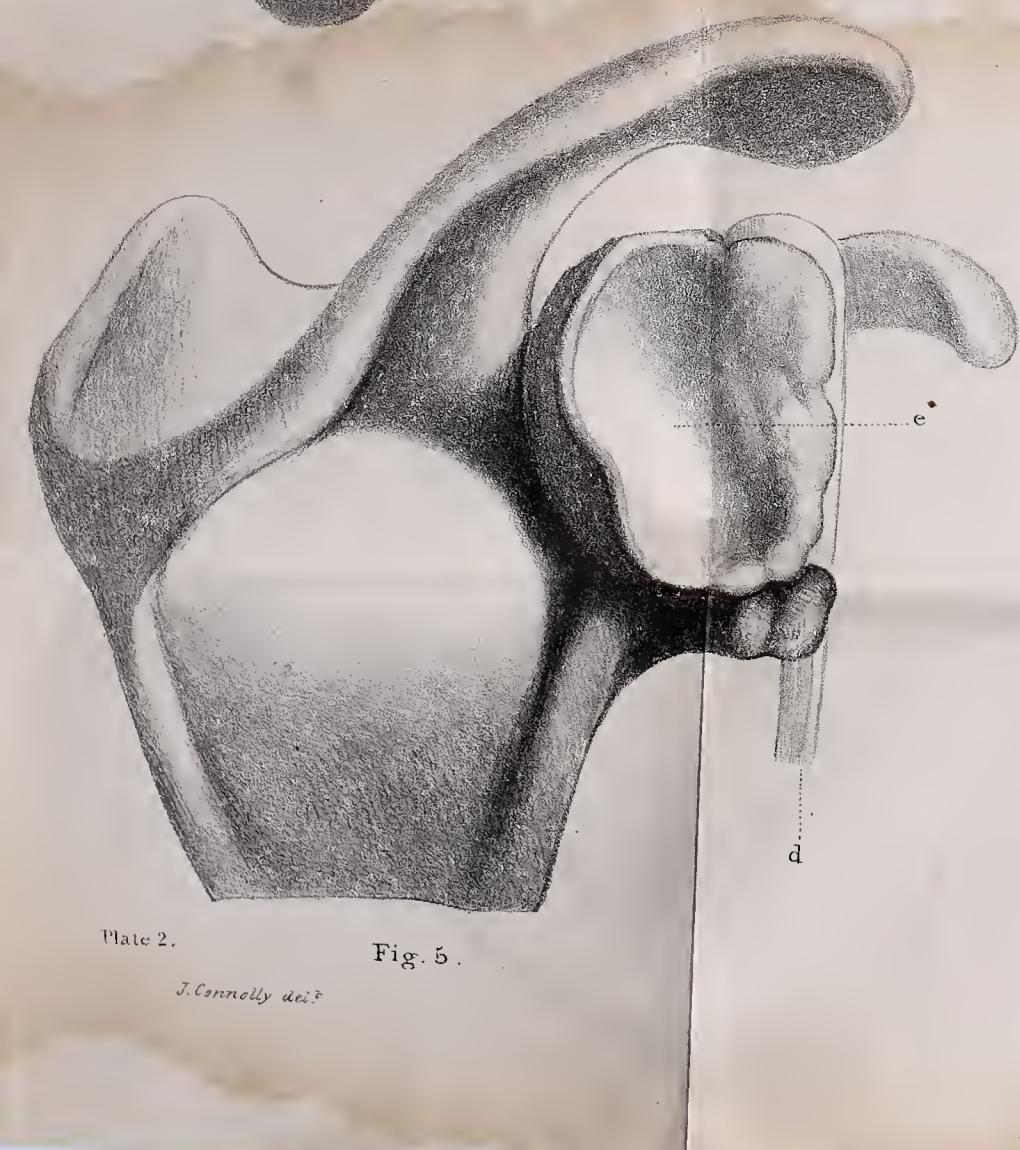
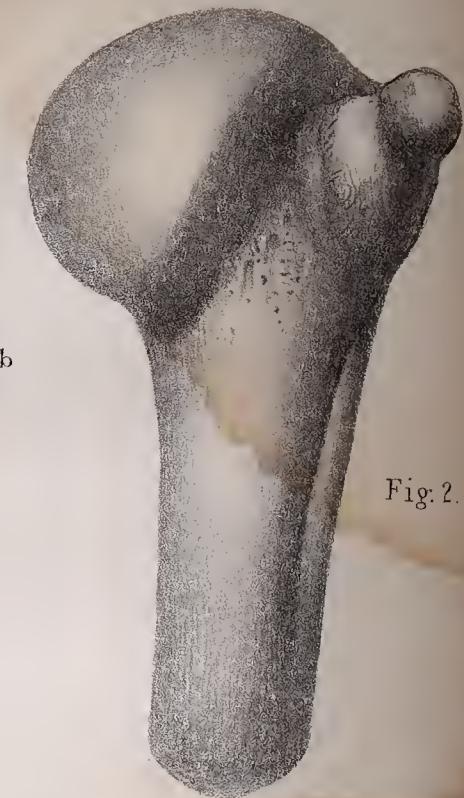
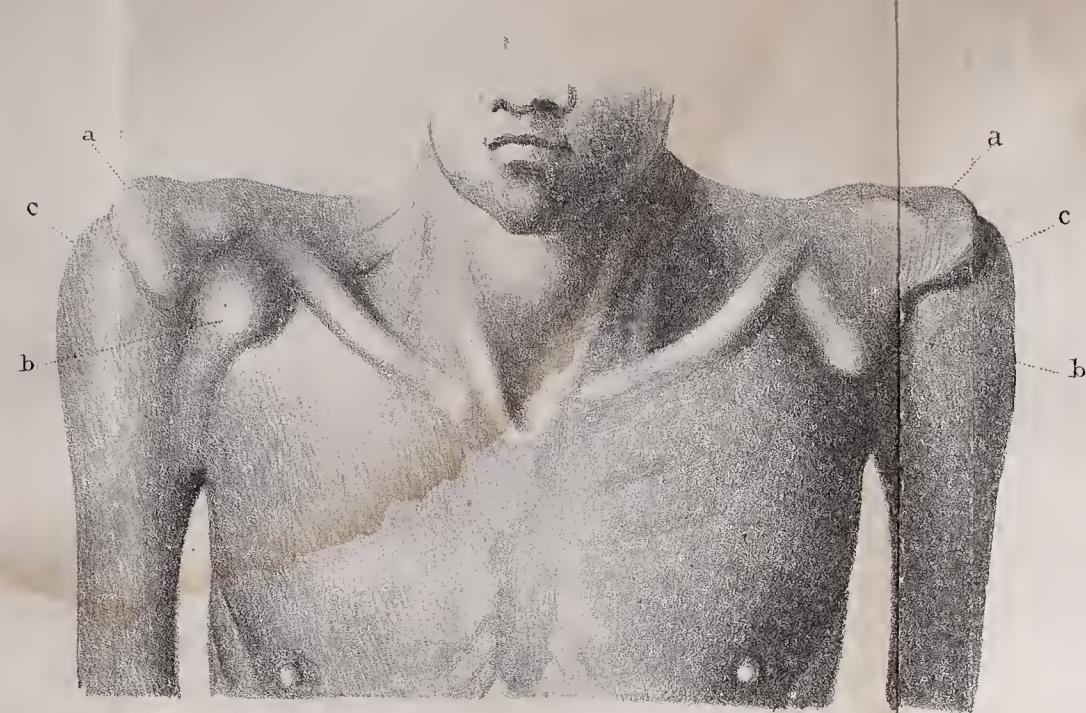


Plate 2.

J. Connally del.

J. G. P. Printer to Her Majesty.

AN ESSAY
UPON THE
ORIGINAL OR CONGENITAL
LUXATIONS
OF THE
UPPER EXTREMITY OF THE HUMERUS.

BY
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DUBLIN:
HODGES AND SMITH, COLLEGE-GREEN.

M.DCCC.XXXIX.

PRINTED BY R. GRAISBERRY.

AN ESSAY,

&c. &c.

ALTHOUGH the contributions made of late years, to our knowledge of the injuries and affections of the bones, which form the articulation of the shoulder, have been both numerous and varied, it nevertheless appears to me, after much research, that there is still one condition of this joint that has hitherto eluded observation, namely, the original or congenital luxations of the head of the humerus. And yet the subject of congenital displacement has been by no means neglected: the Baron Dupuytren, in the second volume of the *Répertoire Général D'Anatomie*, &c. has given an admirable description of the congenital luxation of the head of the femur; and in the ninth part of Todd's *Cyclopædia*, Mr. Adams has given an accurate account of the congenital luxations of the bones of the elbow joint; but the analogous condition of the shoulder joint has not, I believe, been as yet described. It now falls to my lot to tread this unbeatén path; and to be enabled thus to make a positive addition to our knowledge of the abnormal states of the bones of the shoulder is a source of some gratification; while at the same time I would say, in the words of the illustrious Surgeon of the *Hôtel Dieu*, "Toutefois c'est moins le triste avantage, d'ajouter une infirmité nouvelle au catalogue, déjà trop nombreux, des infirmités humaines, que me porte à donner une courte description de ce déplacement, que le désir d'éviter aux

gens de l'art de graves erreurs de jugement, et aux malades des traitemens aussi inutiles qu'ils sont rigoreux."

I have observed within the last few years, and ascertained by *post mortem* examination, the existence of two varieties of congenital luxation of the head of the humerus, and I am of opinion that these deviations from the normal state of the bones of the shoulder joint, (though existing from the earliest period of life,) may not develope themselves, so as to attract attention in a decided manner for many years: this position, applied to the ileo-femoral articulation, we at once admit. Dupuytren has, with much clearness, shown that the original luxation of the head of the femur may pass unnoticed in the infant, or if observed be ascribed to a cause different from the true one; but when the pelvis begins to increase in breadth, and the child is subjected to longer and more fatiguing exertions, then the characteristic features of the original malformation become apparent, and when the pelvis is fully developed, and all parts have completed their growth, and are called into action, the nature of the affection can no longer be doubted or mistaken; the same observations apply, though not perhaps with equal force, to the analogous condition of the shoulder joint. In early life, before the bones have reached their due development, before the muscles which play upon the articulation are called to their full exertion, the outward signs of the deformity may possibly escape observation; but when the bones of the shoulder have reached maturity, when the osseous prominences which overhang the joint stand out in full relief, and particularly when the muscles which act upon the articulation and upon the arm, are called upon to execute their office, then is it that the characteristic features of the original luxation become strikingly apparent.

The two varieties of congenital dislocation of the head of the humerus, which have fallen under my observation, may be termed *subcoracoid* and *subacromial*; of the former species I have seen three examples, of the latter but one.

CASE I.—Congenital Subcoracoid Luxation.

The first case of original luxation of the head of the humerus which came under my observation, was that of Alexander Steele, about twenty years of age ; he has been an inmate of the House of Industry, Dublin, for the last four years. He presents an example of congenital displacement of the left shoulder joint,* and upon the same side a specimen of that variety of club foot, termed *pes equinus* : he does not remember having ever met with any injury of the shoulder : the present condition of the joint has existed from the earliest period of his recollection. The muscles of the shoulder and arm are wasted to a remarkable degree, the circumference of the centre of the arm being three inches and a half less than that of the opposite side ; the atrophy has likewise extended to the muscles which pass from the side of the chest to the humerus and scapula, so much so, that the left side of the thorax, measured from the centre of the sternum to a corresponding point posteriorly, is one inch and a half less in circumference than the opposite side of the chest ; the trapezius muscle, though not so fully developed as its fellow, still is not wasted to such a degree as the other muscles of the limb : it is the principal muscle which moves the scapula, indeed it appears to be almost the only one capable of acting upon that bone ; the left humerus is nearly half an inch shorter than the right.

The motions of the arm are extremely limited ; as it hangs by his side, he can merely swing it backwards and forwards, and even in this motion the scapula largely participates, he cannot abduct it in the least, or raise it in any direction, neither can it be abducted by another so far as to bring it to the horizontal line ; in the scapula, however, there is a compensatory motion that is very striking, it moves with every motion of the arm, or perhaps it would be more correct to say, that the arm follows every motion of the scapula, as the muscles of the former appear to be quite passive, while the trapezius acts strongly upon the latter ;

* Plate I. Fig. 1.

indeed so great is the mobility of the scapula, and so relaxed are its muscles, that when both elbows are pressed upwards simultaneously and with equal force, the left shoulder can be made to rise between three and four inches above the right. Although the muscles of the forearm are not wasted to such a degree as those of the arm, still great difficulty (owing apparently to the atrophied condition of the biceps) is experienced in flexing the elbow joint, so as to bring the forearm even to a right angle with the arm ; and the means by which the patient does effect it are remarkable ; the elevation is not performed gradually, but with a sudden jerk, in which the scapula is also raised considerably, and the arm applied to the side ; and sometimes the body is also inclined to the opposite side, and the elbow supported upon the crest of the ileum. The head of the humerus can easily be pressed inwards, so as to allow of the finger being placed in the outer part of the glenoid cavity, and when the bone is pressed outwards towards the acromion, the remainder of the socket can be felt, situated apparently upon a plane posterior to the outer portion ; the head of the humerus presents nearly its natural form, as far as can be ascertained by an external examination ; the left acromio-clavicular articulation appears to enjoy an unusual degree of motion.

The shoulder has not the rounded form which is natural to it, yet still does not present the flattened appearance which marks the accidental luxation of this joint. The acromion process is prominent, and when the arm hangs by the side, the head of the humerus, distinct and prominent, is so far removed from the under surface of the acromion, that the thumb can easily be placed between them ; by raising the elbow this appearance is altogether removed, and the joint assumes more of its natural form, still, however, wanting the rotundity and plumpness derived from a proper development of its muscles.

CASE II.—*Congenital Subcoracoid Luxation.*

Upon the morning of the 3rd of April, 1839, I visited Mr. H— æt. 20, whose left shoulder joint presents an example of

congenital dislocation under the coracoid process; the appearances are so precisely similar to those detailed in the preceding case, that a full description of them would be useless repetition; it will be sufficient to enumerate a few of the leading characters of the deformity. As the arm hangs by the side, the head of the humerus lies under the coracoid process, and the outer part of the glenoid cavity can be felt beneath the prominent acromion; when the elbow is drawn forwards across the chest, the head of the humerus passes backwards beneath the acromion, vacating completely the abnormal portion of the socket, which can then be plainly felt; the muscles of the shoulder and arm are much wasted, but as in the case of Steele, the trapezius appears to be as well developed as its fellow of the opposite side; the motions of the arm are very limited; he cannot raise or abduct it, and the motions backwards and forwards are almost the only ones enjoyed, even these are not performed without corresponding movements of the scapula; the deformity has existed since his birth, but became more obvious and striking as he increased in age and stature. For the opportunity of examining this case, I am indebted to Mr. Adams.

CASE III.—*Symmetrical Subcoracoid Luxations—Congenital.*

The third case furnishes an example of congenital luxation of the shoulder occurring on *both* sides; the individual from whom the specimens were taken was a female æt. 29, who had been for many years a patient in the lunatic department of the House of Industry; she died of chronic inflammation of the membranes of the brain, and I was called upon to make the *post mortem* examination. When I entered the room, my attention was at once attracted by the singular appearance which the shoulder joints presented: the deviations from the natural state were most remarkable upon the left side; the muscles were wasted, the roundness of the shoulder gone, the acromion process prominent, and the head of the humerus lay immediately under the coracoid process, the point of which was in a line with the bicipital groove of the humerus; the elbow projected a little from the

side, but could readily be approximated to it ; the right shoulder presented similar appearances, but in a slighter degree ; the head of the humerus occupied more nearly its natural situation, but still the flattened form of the shoulder, the wasted muscles, and prominent acromion, all indicated, that the condition of the joint was similar to that of its fellow.

From the external appearance of the joints, it was difficult to say what was the exact nature of the alterations from the natural state which had taken place, but still I was clearly of opinion, that they had not been the result of accidental violence ; they did not resemble the appearances presented in cases of luxation, either into the axilla, or forwards beneath the pectoral muscle, and as there was no outward sign or trace of disease, I ventured to express my opinion, that the appearances in question were the consequence of an original malformation of the glenoid cavity of the scapulæ. Let us now see what anatomical evidence there was to support this idea.

Upon the left side there was scarcely any vestige of the natural glenoid cavity, but directly beneath the under surface of the coracoid process,* and formed partly upon the costal surface of the scapula, and partly upon its axillary margin, there was a well formed socket, about an inch and a half in its vertical direction, and of the same extent transversely ; it extended to the under surface of the coracoid process, from which the head of the humerus was merely separated by the capsule ; there was no interval or space, (as there is in the natural condition of the bone) between the summit of the abnormal socket, and the process just named ; around this socket the glenoid ligament, perfect and well formed, was continued from the undeveloped glenoid cavity, from the apex of which sprung the tendon of the biceps, in every respect natural ; the capsular ligament was perfect throughout.

The head of the humerus deviated remarkably from its

* Plate I. Fig. 5.

natural spherical form ; it presented an oval shape, the long axis corresponding with the axis of the humerus ;* the oval form was principally due to the deficiency of its posterior part, and there existed between the greater tubercle and the margin of the head of the bone where the investing cartilage terminated, a broad, shallow depression or sulcus, corresponding to the elevation which distinguished the normal from the abnormal portion of the glenoid cavity ; the shaft of the humerus was small and seemingly atrophied ; the position of the head of the bone, with respect to the coracoid process and acromion, varied according as the motion of rotation inwards or outwards was imparted to the arm. In the natural condition of the parts, these motions produce but little change in the relative situation of the head of the humerus, but in the case before us, during rotation outwards, it passed towards the acromion process, and occupied the small portion that existed of the natural glenoid cavity, while rotation inwards threw the head of the bone altogether beneath the coracoid process, so that the finger could be easily sunk into the outer portion of the socket.

Upon the right side, the condition of the bones was somewhat different, though the characteristic features of the deformity were similar ; the deficiency of the glenoid cavity was confined to its inner border, which, to the extent of an inch, from above downwards, was entirely wanting, so that the head of the humerus had passed inwards, though not to such an extent as in the opposite joint ;† the internal boundary of the socket was formed by a ridge of bone, which passed downwards from the under surface of the coracoid process ; the tendon of the biceps and the capsular ligament were perfect ; the oval form of the head of the humerus was more remarkable here than upon the left side, and the deficiency of its posterior part more striking.‡

* Plate I. Fig. 3.

‡ Plate I. Fig. 2.

† Plate I. Fig. 4.

But it will be asked, why do I consider these cases to present examples of congenital malformation, rather than of the consequence of disease or accident ? Many circumstances and much reflection have induced me to form this opinion. With respect to the first case, that of Steele, it is easy to prove, that in his shoulder joint we have an undoubted specimen of congenital luxation ; the boy who is the subject of it never met with any accident, never received any injury of the joint, and it is well known that the condition of the joint which I have described has existed from his infancy, and that the articulation has never been the seat of pain, inflammatory action, or disease of any description : moreover the co-existence of a pes equinus would seem in some measure to confirm my opinion as to the nature of the affection of the shoulder.

Now, let any person compare the cases of Steele, and of Mr. H—, with the appearances described in the third case ; and, I think, he cannot avoid the admission, that whatever might be the nature of the affection, it was similar in all. We need not, however, have recourse to this mode of reasoning, for the third case bears in itself abundant evidence to prove the early origin of the deformity in question ; *the situation of the head of the humerus* (as already described) goes a great length, in my mind, to disprove the idea of accidental luxation. Let any person examine the specimens of unreduced luxation of the shoulder joint, that are preserved in the different pathological museums to which he may have access, and compare them with the description and the plate which I have given, and he must, I think, at once see that they bear to each other no resemblance : he will see that in the dislocation downwards, as well as in that beneath the pectoral muscle, the head of the humerus is very differently placed. The circumstance also of *the same appearances and deformity existing in each shoulder joint*, is, in my opinion, an almost decisive proof that the defects were congenital, and not produced by violence ; if we add to this, *the existence of a glenoid ligament perfect and natural in every respect, and the integrity of the*

tendon of the biceps muscle, (which disappears very early in cases of disease affecting the articulation,) it will, I imagine, be readily admitted, that disease had no share in producing the alteration in question. The form of the head of the humerus (nearly similar on each side) is peculiar, and totally different from any change that I have ever seen produced in it by disease, or in cases of unreduced luxations.

The symptoms and appearances which have been described by more than one writer, as belonging to an accident termed *partial luxation of the head of the os humeri*, resemble very much those which present themselves in cases of *congenital dislocation* of the same bone, and I feel convinced that examples of the latter have been published under the title of partial luxation; and were it not foreign to the subject of my communication, I could easily show, that the same appellation has been given to a condition of the joint which is obviously the consequence of rheumatic disease.*

In the Medico-chirurgical Transactions, vol. xx. some observations on Atrophy of Bone, have been published by Mr. Curling, Assistant Surgeon to the London Hospital. At page 338, he details the following case as being an uncommon variety of atrophy, and of considerable interest in surgical pathology.

“CASE.—*Partial Dislocation of the Os Humeri forward beneath the Pectoral Muscle—Atrophy of the Head of the Bone, and inner Edge of the Glenoid Cavity of the Scapula.*

“A German labourer, æt. 27, had applied at the London Hospital as often as fourteen or fifteen times, on account of repeated dislocations of the right humerus beneath the pectoral muscle. The bone had been generally replaced without difficulty, and on several other occasions had returned without surgical assistance.

• Vide Sir A. Cooper on Dislocations, second edition, page 448, and Plate XXI. Fig. 2; and Mr. Adams' commentaries on this case, in the Athenæum for Sept. 10, 1836, (abstract of a paper read before the Medical section of the British Association at Bristol.)

Various mechanical contrivances were resorted to in order to confine the bone to its natural position, but none were of any service, and the bone was so often displaced by the least muscular exertion that he was unable to continue at work. On the last occasion that he applied, in August, 1835, the dressers experienced great difficulty, and although they employed the pulleys, were unable to reduce the dislocation. As he was sitting, however in a chair, somewhat exhausted by the efforts that had been made, the bone suddenly slipped into its place. About a fortnight afterwards, he was seized with convulsive fits, became insensible, and died in two days.

“On examining the shoulder the muscles were found healthy and well developed. There was a false socket beneath the coracoid process, at the inner edge of the glenoid cavity, in front of the neck of the scapula, and bounded by the tendon of the sub-scapular muscle, in which there was considerable bony deposit. The head of the humerus was greatly altered in shape, being of an oval form, and its long diameter being in a line with the axis of the bone. About one-fourth of it, together with the connecting cartilage, had been removed so evenly, that the head appeared as if a section had been made of it. The inner edge of the glenoid cavity, with its cartilage, was also in great part removed. The portions of bone thus exposed were even and slightly polished. The capsular ligaments were smooth internally, apparently enlarged, and loose, and the tendons of the two heads of the biceps natural.”

Upon this, in my opinion, well marked case of congenital luxation, Mr. Curling observes, “This remarkable atrophy was no doubt occasioned by the friction to which the head of the humerus had been subjected in its play from the natural to the false socket, and operated as a bar to the bone being subsequently retained in its right situation during the motion of the joint. A like situation of the head of the os humeri is related in Sir A. Cooper’s work on dislocations, to have been found in a subject brought for dissection to St. Thomas’s Hospital, with

an unreduced dislocation of this bone. No history was attached to it, so that the change is unaccounted for. Mr. Stanley has shown me three similar preparations contained in the Museum of St. Bartholomew's Hospital, in which, however, the atrophy is not so far advanced. They were also taken from subjects in the dissecting room, and are without any history. In these, as in the preparation figured in Sir A. Cooper's work, there is a new glenoid cavity beneath the coracoid process."

Now I look upon it, that neither in the history or *post mortem* examination of this case, nor in the observations which follow it, is there any evidence to justify us in considering it as one of partial dislocation. On the contrary, the repeated displacement of the bone by the least muscular exertion, its return on several occasions without surgical assistance, the failure of all mechanical contrivances to confine it to its natural position, the situation of the abnormal socket, and the peculiar form of the head of the bone, all these circumstances induce me to incline to the opinion, that there was in this case a congenital defect, an arrest of development of the inner portion of the glenoid cavity. The account given by Mr. Curling corresponds so accurately with what I have myself observed and described above in cases where the deformity was known to have existed from infancy, and where no injury had ever been received, that I cannot avoid coming to the conclusion I have mentioned. If there were not an original malformation, why should the dislocation, once fairly reduced, have recurred at all, or been reproduced by the slightest muscular exertion, in a case where there was no fracture, no paralysis, for we are told the muscles were found healthy, and well developed. Of the previous history of the individual we have not been informed, nor do we know, whether in early life any abnormal appearance of the shoulder joint had been noticed; at all events, as I have already observed, there is every reason to suppose, that many congenital displacements may for a long period pass unnoticed, and only attract decided attention when the individual is compelled to exert the

limb, and bring its muscles into action. With respect to the preparations alluded to by Mr. Curling, as contained in the Museum of St. Bartholomew's Hospital, I may mention that I have seen and closely examined them, but they have not convinced me that any such accident as partial dislocation occurs, or can occur, unless where there exists in the glenoid cavity some arrest of development or fracture.

CASE IV.—*Symmetrical Sub-acromial Luxations—Congenital.*

A woman named Judith Tracy Doyle, *aet. 42*, a lunatic, died upon the 8th of last February, in the House of Industry; she had been a patient in the lunatic department of the institution for fifteen years; she was subject to severe epileptic convulsions, in one of which she died. Upon the day following her death I made an examination of the body: the brain presented the appearances so frequently observed in idiots, and so accurately delineated by Cruveilheir,* the convolutions of the cerebrum were small and wasted, and the anterior lobes were separated from the frontal bone by an interval of at least three quarters of an inch. When the clothes were removed from the body, I noticed, (as did also Mr. Brabazon, who assisted in making the examination,) a very singular, and to me, at least, a most unusual appearance of the left shoulder joint, which, as the body was placed, first caught my eye; the head of the humerus seemed to have been dislocated upon the dorsum of the scapula; but finding that the opposite joint presented a precisely similar appearance, and reflecting upon the very rare occurrence of such an accident, I abandoned this idea, and expressed my opinion at the time, that we had got an example of double *congenital* luxation of the head of the humerus upon the dorsum of the scapula: so perfectly alike were the shoulders, that the description of one will be sufficient.†

The coracoid process formed a very remarkable projection, and the acromion was unusually prominent, but still the

* Livraison v. and viii.

† Plate II. Fig. 1.

glenoid cavity could not be felt beneath it; the head of the humerus formed a distinct tumour towards the dorsal surface of the scapula, beneath and behind the summit of the acromion, and closely applied to its inferior surface: the arm was not removed from the side, and the forearm was rotated inwards. Upon examining the interior of the joint, I found that there was no trace of a glenoid cavity in the usual situation, but there was a well-formed socket surrounded by a glenoid ligament, upon the outer surface of the neck of the scapula: * broader above than below, and reaching upwards close to the under surface of the acromion; the tendon of the biceps, perfect throughout, adhered to the upper and inner part of its circumference: the aspect of this abnormal cavity was directed forwards and outwards. The head of the humerus† presented the same oval form, already described as occurring in case, No. III., with this difference, however, that in the latter case, as already described, the oval form was due to the deficiency of the posterior part of the head, while in the case of Doyle, it was the anterior portion which was wanting; the lesser tubercle formed a very remarkable projection, it was elongated and curved, so as to bear considerable resemblance to the coracoid process of the scapula. A reference to the accompanying plate will, however, give a much better idea of the appearances than any description of mine. I should think it scarcely necessary to occupy the time of the reader in attempting to prove that these joints presented examples of congenital luxations of the head of the humerus upon the dorsum of the scapula: the total want of a glenoid cavity in the natural situation, the perfect resemblance between the two abnormal sockets, in form, size, and position, the integrity of the tendons and ligaments, the singular form of the head of the humerus, all confirm this idea. I might also add the very rare occurrence of such an accident as dislocation upon the dorsum of the scapula; few, comparatively speaking, have seen it,

* Plate II. Figs. 4 and 5.

† Plate II. Figs. 2 and 3.

and who has witnessed its occurrence in both shoulders of the same person? Sir A. Cooper mentions that he had met with only two examples of luxation backwards of the humerus in the course of eight and thirty years; and of such rare occurrence did the Baron Boyer think the injury, that to admit of its taking place, he supposed there must exist some malformation of the articular surface; and in a note appended to page 178, vol. iv. of his surgical works, he says, "Nous avons eu occasion d'observer sur un cadavre une inclinaison singulière de la cavité glénoïde de l'omoplate en arrière. Cette surface articulaire présentait en même temps un prolongement remarquable du même côté; aussi l'humérus passait-il facilement dans la région sous-épineuse. Un malade dont M. Fizeau a publié l'histoire*, et sur lequel nous avons observé, conjointement avec lui, une luxation de l'humérus en dehors ou en arrière, présentait cette circonstance remarquable, que la luxation se reproduisait avec une grande facilité. Cette particularité n'est-elle pas étonnante dans une maladie qui est très rare, et qui ne peut survenir que très difficilement: et n'est-il pas probable que les surfaces articulaires, et notamment celle de l'omoplate, présentent quelques dispositions contre nature, qui favorisaient le déplacement de l'humérus?"

This, as far as I have been able to ascertain, is the only allusion made by any writer to the deficiency of a portion of the glenoid cavity, as a cause of luxation of the head of the humerus.

While in London last summer, I visited, among others, the Museum of King's College, where Professor Todd drew my attention to a scapula, upon the dorsal surface of which, beneath the root of the acromion process, there was a well-formed socket for the head of the humerus, and closely resembling those which I have described in the case of Doyle, and which are delineated in Plate II. Figs. 4 and 5; the history connected

* Journal de Médecine Chirurgie, etc. par MM. Corvisart, Leroux, et Boyer tome x. p. 386.

with the preparation was unknown, but from what I have since seen, I feel convinced that it was an original malformation.

Whether the dislocation upon the dorsum of the scapula be the result of accident, or the consequence of an original malformation of the glenoid cavity, the external characters of the affection are, as we might expect, similar in both cases; this will be apparent from the following brief examination of the appearances which I observed in the case of Judith Doyle. The transverse diameter of the shoulder, measured from the centre of the clavicle to the head of the humerus, was obviously greater than natural; the exact amount of increase, of course could not in this case be ascertained, as both shoulders were similarly altered. Still, however, the distance between the two points that I have mentioned struck me at once as being greater than natural: indeed it is a necessary consequence of the altered position of the head of the humerus. The acromion process did not project so much as it does in the other luxations of the shoulder, neither was the rounded form of the latter as much altered; the flattening was confined altogether to the anterior part of the joint; and what was lost in this direction was gained externally and posteriorly, where a round, firm tumour indicated plainly the situation of the head of the bone. In the other luxations of the shoulder there is no remarkable projection of the coracoid process, it is in a measure obscured by the head of the humerus; but in the case we are considering, nothing could be more striking than the prominence formed by that process, owing, no doubt, to the removal of the head of the humerus from its vicinity. This is a symptom belonging to dislocation upon the dorsum of the scapula, that appears to have escaped the notice of British surgeons, although more than one of the continental writers have enumerated it; it was, I believe, first mentioned by Manne of Toulon,* afterwards by Sedillot, and very lately it has been much dwelt upon by Lepelletier.

* *Traité Élémentaire des Maladies des Os.*

The arm was directed obliquely downwards and inwards, the elbow approximated to the side, and the hand and forearm in a state of pronation.

Since the preceding pages went to press, I have been favoured by my friend Surgeon Wilde, with a very detailed account of a case of congenital luxation beneath the coracoid process, upon the right side, which has been for some time under his own care. The patient is a young lady thirteen years of age : the deformity was first noticed at the age of three months when the arm was observed to hang in an unnatural position by the side, and the child appeared unable to raise it to a right angle with the body. From that period up to the present time, the deformity became every year more evident, and it now presents all the characters which I have described in the preceding pages as indicating congenital luxations of the shoulder. And this is a case which has not been neglected, having been under treatment from the time when the deformity was first noticed ; but all means have proved useless, all mechanical contrivances have failed to retain the head of the bone in its natural position. The child did not receive any injury of the joint ; and the circumstance of the deformity having escaped observation for the space of three months will not appear surprising, when we consider, that at this early period of life, the rotundity and plumpness of the shoulder are preserved by the great abundance of adipose which surrounds the joint.

Such is a brief but accurate statement of the facts which I have observed relating to congenital luxations of the articulation of the shoulder. Our knowledge of these remarkable affections must, of course, be considered as still incomplete ; we want a more extended series of observations ; a larger number of cases must be grouped together, to enable us to give a full and complete history of congenital dislocations of the shoulder. Until these objects are accomplished, I trust that the preceding observations may not be considered destitute of interest.

Χρῶ τοῖς εἰρημένοις, η ζήτει βελτίω τούτων.

CASE V.—*Congenital Subcoracoid Luxation.*

Upon the 16th of last month, a boy, aet. 9, was sent to me by Dr. Croker. The aunt of the child stated, that his right arm was paralysed, but as soon as I looked at the limb, I recognized, *even through his clothes*, a congenital luxation of the head of the humerus; the flattened appearance of the shoulder, and the peculiar and characteristic manner in which the arm hung by his side, at once led me to form this opinion, which subsequent examination proved to be correct. His aunt stated, that he had nearly attained the age of one year before the condition of the limb attracted attention; which was then excited, not by the deformity of the shoulder, but by the atrophied state of the muscles of the arm, when compared with those of the opposite side: the child had not met with any accident, nor did he ever complain of pain or any other symptom indicative of disease of the articulation. Surgical assistance was at once procured, and an opinion was given, that the case was one of simple paralysis: blistering and other severe measures were had recourse to for upwards of two years, but without being productive of any beneficial effect; various mechanical contrivances were subsequently employed, with a view to retain the head of the humerus in its proper position, but they all failed in accomplishing this object.

I particularly inquired whether the deformity of the shoulder had increased since it was first noticed, and was told by the child's aunt, that several years elapsed before the full development of the appearance which the joint now presented. These appearances it is quite unnecessary to enumerate; as it should be merely a repetition of what has been already described in the cases of Steele and Howe; there is the same prominence of the acromion and wasting of the muscles; the same mobility of the scapula and glenoid cavity, incompletely developed, can be felt with equal facility and distinctness; in this case, also, the atrophy has not extended to the trapezius muscle, on the contrary, it is as well developed as that of the opposite side.

EXPLANATION OF PLATES.

PLATE I.

Fig. 1. View of Steele's shoulder.

Fig. 2. Portion of the right humerus, shewing the altered form of the head of the bone in the third case detailed.

Fig. 3. Portion of the left humerus, shewing a similar alteration.

Fig. 4. Portion of the right scapula.

f Tendon of the biceps muscle.

g Deficiency of the inner edge of the glenoid cavity.

Fig. 5. Portion of left scapula.

f Tendon of the biceps muscle.

g Abnormal socket, directly under the coracoid process.

PLATE II.

Fig. 1. View of the external appearance of the shoulder joints, in the case of Doyle.

a Acromion process.

b Coracoid process.

c Head of the humerus.

Fig. 2. Portion of the left humerus, shewing the alteration in the form of the head of the bone, and the enlargement of the lesser tubercle.

Fig. 3. Portion of the right humerus, shewing similar changes.

Fig. 4. Left scapula.

d Tendon of the biceps muscle.

e Abnormal socket, placed under the posterior part of the acromion process, upon the outer surface of the neck of the scapula.

Fig. 5. Right scapula.

d Tendon of the biceps muscle.

e Abnormal socket.